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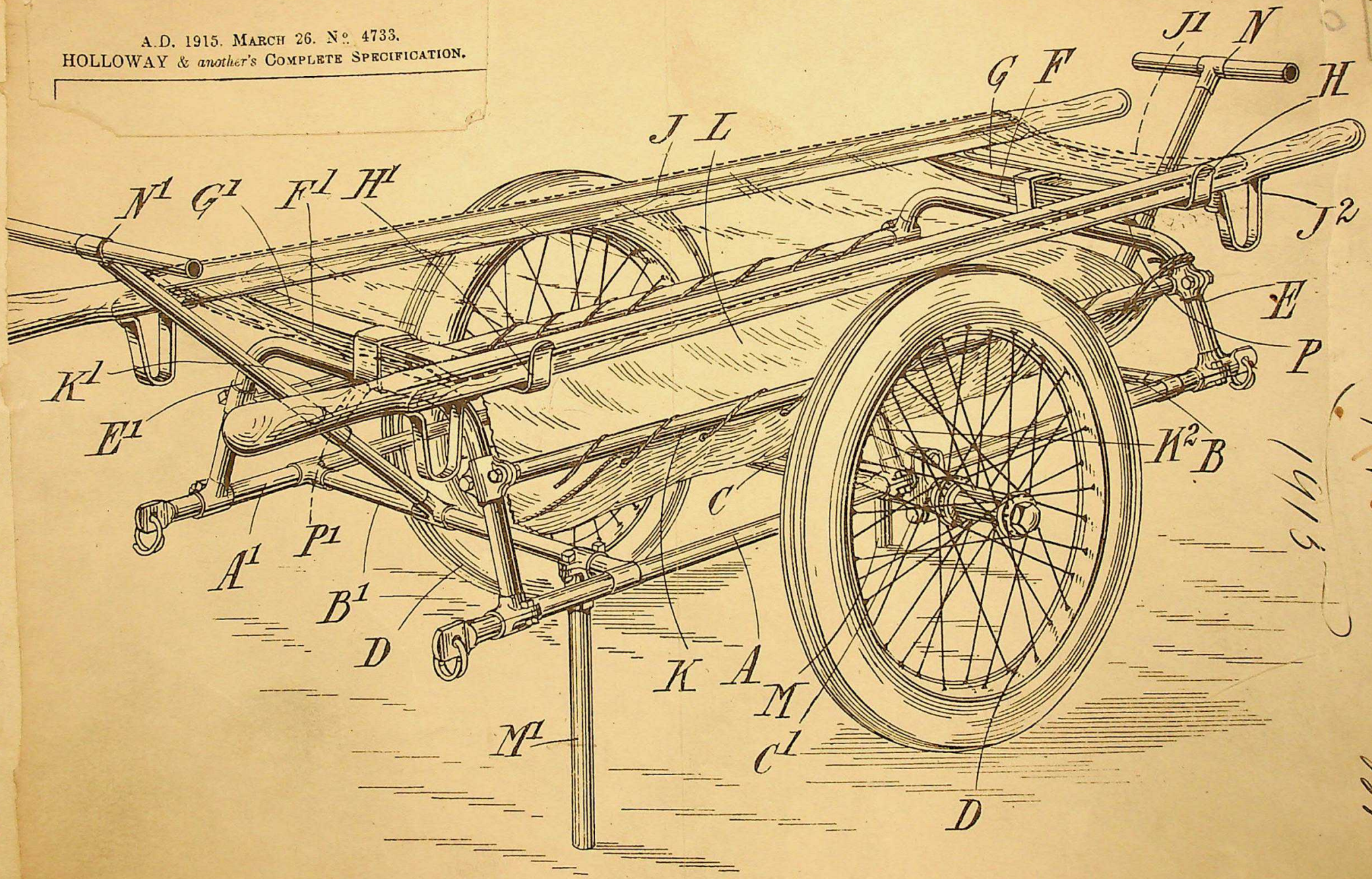
A.D. 1915. MARCH 26. Nº. 4733.
HOLLOWAY & *another's* COMPLETE SPECIFICATION.



4733

N° 4733 A.D. 1915

DUPLICATE

Date of Application, 26th Mar., 1915

Complete Specification Left, 24th Sept., 1915—Accepted, 18th Nov., 1915

PROVISIONAL SPECIFICATION.

Improvements in or relating to Stretcher Carriages and the like.

(Part communication from HAROLD FURBER, Captain, 2nd Welsh Regiment, 1st Division, 3rd Brigade, France.)

We, SIDNEY CHARLES HOLLOWAY, Engineer, of 87, St. Mary's Mansions, Paddington, London, W., and MINERVA MOTORS LIMITED, Manufacturers, of Chenies Street, London, W.C., do hereby declare the nature of this invention to be as follows:—

This invention is for improvements in or relating to stretcher carriages and the like, and it has for its object to provide a carriage by which stretchers can be moved easily and quickly from one place to another, and with as little discomfort as possible to an injured person carried thereon. It is also an object of the invention to provide the stretcher carriage with a box or like receptacle whereby it can be employed for other purposes than stretcher work, if desired.

According to this invention a stretcher carriage comprises the combination with a light steel frame mounted, with or without springs, on wheels preferably provided with pneumatic tyres, of upwardly extending inverted U-shaped members at each end of the frame which are provided with means for supporting a stretcher. In carrying the invention into effect a laminated plate spring may be mounted on each of the upwardly extending inverted U-shaped members, and the ends of the top plates thereof are bent upward to support and hold the stretcher. The carriage may also be provided at each or one end with a leg pivoted to the frame and/or a handle attached also to the frame.

Preferably also there is mounted on the frame of the carriage a box which if desired may be zinc lined and provided with partitions and a lid.

One form of stretcher carriage according to this invention will now be described. It comprises a rectangular frame constructed of light steel tubing having the longitudinal members extending beyond the point of junction of the shorter transverse members. The frame is mounted on a pair of wheels having pneumatic tyres and ball-bearings, and if desired springs may be inserted between the frame and the axle of the wheels. The ends of the steel tubes forming the frame are screwed and are secured together by internally screwed caps, so that the carriage may be readily taken to pieces and packed for transit. At each end of the longitudinal members of the frame there is secured an upwardly extending inverted U-shaped member formed of steel tube, and to the upper end of each of these members is secured, as for example by bolts, a laminated plate spring having the upper plate extended and the ends turned in an upward direction to form supports for and to hold a stretcher.

A leg is provided at each or one end formed of a light steel tube and pivoted preferably to the transverse members of the frame, so that it may be swung up out of contact with the ground if desired. Secured also to one or both of

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the short transverse members of the frame are handles extending upward at an angle from the frame. Such handle or handles are preferably T-shaped and are secured to the middle of each transverse bar and also to the top of the upwardly extending inverted U-shaped members.

On the frame and within the upwardly extending members is mounted a box, which may be of wood or other material, and which is preferably zinc lined and provided with partitions and a lid.

The carriage may be constructed to carry any form of stretcher.

It is to be understood that various modifications may be made in the stretcher carriage described without departing from this invention.

Dated this 25th day of March, 1915.

BOULT, WADE & TENNANT,
111 & 112, Hatton Garden, London, E.C.,
Chartered Patent Agents.

COMPLETE SPECIFICATION.

Improvements in or relating to Stretcher Carriages and the like.

We, SIDNEY CHARLES HOLLOWAY, Engineer, of 87, St. Mary's Mansions, Paddington, London, W., and MINERVA MOTORS LIMITED, Manufacturers, of Chenies Street, London, W.C., do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention consists of improvements in or relating to stretcher-carriages and the like and has for its object to provide a carriage by which stretchers can be more easily and quickly moved from one place to another, and with as little discomfort as possible to an injured person carried thereon.

According to this invention a stretcher-carriage comprises the combination with a frame mounted (with or without springs) on wheels, of upwardly extending inverted U-shaped members near each end of the frame to support a portable stretcher. Preferably the frame is built up of light steel tubes, and the wheels are provided with pneumatic tyres to absorb shocks.

In the preferred construction a resilient support is mounted on each of the U-shaped members to cushion the portable stretcher; this support conveniently takes the form of a laminated spring having the ends of the top plate bent up to receive the stretcher between them.

According to another feature of the invention the U-shaped members are connected together by longitudinal side-struts and a sheet of canvas or other suitable material is supported from these struts to serve as a stretcher.

Other features of the invention are hereinafter described and the novel details set forth in the claims. An embodiment of the present invention is illustrated in the accompanying drawing which is a perspective view, in which some parts are broken away for clearness.

The stretcher-carriage consists of a rectangular framework of light steel tubes, longitudinal side tubes A A^1 and transverse tubes B B^1, secured near the ends of the longitudinal tubes. This frame is built up by brazing the tubes together in sockets in the usual manner. A transverse member C is secured on the side members A A^1 about the middle of the length of the frame, and this member constitutes an axle for a pair of wheels D. The member C which is a steel tube similar to those used in the framework is held in place by any convenient form of detachable bracket C^1. The wheels are of the well-known

wire-spoked type provided with pneumatic tyres, and are conveniently similar to those used in light motor vehicles, thereby ensuring adequate strength and resilience in addition to the desirable wear-resisting qualities.

Near each end of the longitudinal members A A^1 there is mounted an upwardly extending inverted U-shaped member E E^1, each secured to the side tubes A A^1 in any convenient manner. About the middle of each of the members E, E^1 there is fixed a laminated spring F, F^1 which extends transversely of the vehicle. The top plates G G^1 of the springs have their ends bent up as at H H^1 and there is thus provided a convenient support for the usual form of portable stretcher J. This is shown mounted in position, but the supporting sheet on it J^1 is merely indicated in dotted lines so as not to obscure the construction of the stretcher-carriage itself. It will be seen that the upstanding ends H H^1 of the springs retain the stretcher in position against any sideways movement, and the ordinary feet J^2 of the stretcher prevent it from moving endwise on the carriage.

The U-shaped members E are connected at each side of the carriage by longitudinal members K K^1 and these are themselves connected about the middle of their length by struts K^2 to the side members A A^1. In addition to strengthening the general construction of the vehicle, these side members are used to support a sheet of canvas or other suitable fabric which serves as a stretcher for carrying an injured person, underneath the stretcher J. The sheet L is conveniently secured to the side rods K K^1 by lacing it thereto in the manner illustrated.

A leg is provided at one or both ends of the stretcher-carriage to enable it to stand in a horizontal position. These legs conveniently take the form of tubular members M M^1 pivotally mounted on the transverse members B B^1 so that they can be swung up into their inoperative position when the carriage is being moved and can be swung down so as to maintain the carriage horizontally when it is required to stand. These legs are conveniently disposed at opposite corners of the framework of the carriage.

Handles N N^1 are provided at one or both ends of the carriage to facilitate its handling. These handles are secured on the transverse members B B^1 and are braced to the members E E^1 by suitable struts P P^1. A hand pump for inflating the tyres is conveniently attached to one of the handles by the ordinary form of spring clip. The longitudinal members A A^1 may be provided at each end with links as shown in the drawing, to facilitate the attachment of harness, if the carriage is to be drawn, say by dogs, instead of by hand.

It will be appreciated that any usual form of stretcher may be carried on this carriage and that the constructional features of the stretcher itself, such as the struts for maintaining it expanded, do not form any part of the present invention.

If desired a box may be mounted on the frame instead of, and in the place of the sheet L so that the carriage can be used for transporting food or other goods and in such case the box is preferably zinc lined being provided with convenient partitions and a lid if so desired.

Various modifications may be made without departing from the spirit of the present invention, and obviously also the mechanical details of the construction can be considerably modified.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, as partly communicated to us by our foreign correspondent, we declare that what we claim is:—

1. In a stretcher-carriage the combination with a frame (for example a light steel tubular frame) mounted, with or without springs, on wheels (preferably provided with pneumatic tyres), of upwardly extending inverted U-shaped members (for example E E^1) near each end of the frame to support a portable stretcher.

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2. The combination with a stretcher-carriage according to Claiming-clause No. 1 of a resilient support mounted on each of the U-shaped members to cushion a portable stretcher (for example a laminated spring G G^1 having the ends of the top plate bent up to receive the stretcher between them).

3. In a stretcher-carriage according to Claiming-clause No. 1 the combination with the U-shaped members of longitudinal struts (for example K K^1) and a sheet supported from them to serve as a stretcher.

4. In a stretcher-carriage according to preceding Claiming-clause No. 1 or No. 2 the provision at either or both ends thereof of a leg pivoted to the frame and/or a handle also attached to the frame.

5. The combination with a stretcher-carriage according to any of the preceding claiming-clauses, of a box mounted thereon, preferably zinc-lined and with or without a lid and partitions.

6. The improved stretcher-carriage as illustrated in the accompanying drawings.

Dated this 24th day of September, 1915.

BOULT, WADE & TENNANT,
111 & 112, Hatton Garden, London, E.C.,
Chartered Patent Agents.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1915.